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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,557

Applicant(s)

KAKEMIZU ET AL.

Examiner

Derrick W. Ferris

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-25 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 8 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/18/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-5, 13-15 and 16-18** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term “the other terminal” at **claim 1**, line 14 lacks proper antecedent basis. **Claims 2-5** are rejected for depending on a rejected parent claim. As to **claim 13**, see similar rejection where “the other terminal” lacks antecedent basis at line 25. **Claims 14-15** are rejected for depending on a rejected parent claim. **Claim 16** is rejected for lacking proper antecedent basis with respect to “the VPN information” recited e.g., at line 18. **Claims 17-18** are rejected for depending on a rejected parent claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 2, 4, and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over “Mobile IP and Security Issue: An Overview” to *Perkins* in view of U.S. Patent No. 6,728,536 B1 to *Basilier et al.* (“*Basilier*”).

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

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- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 1**, for step (a) *Perkins* discloses a server apparatus as AAA-H, see e.g., figure 3. *Perkins* further discloses a distribution means that distributes the information to construct a safe communication path between the terminal within an external network of a move destination and the other terminal with whom the terminal communicates. In particular, “the terminal” is MN and “other terminal” is HA. As such, see e.g., section 5 on pages 143-144 where the AAAH first makes local arrangements with the HA (i.e., a predetermined position registration message” and second sends a registration response back to the AAAL (i.e., an authentication response message”).

For step (b) *Perkins* may be silent or deficient to the further limitation of using a memory means that stores information for constructing a safe communication path within an IP network in relation to the terminal. In particular, examiner notes that limitation may be taught since the AAAH obtains both key information (see e.g., section 5.2 on page 145) and allocates both an HA and an IP address (see e.g., section 5.1 on page 145)

Basilier teaches the further recited limitation above at e.g., the background in column 1, lines 37-49.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Perkins* by clarifying that the information is stored in a database at the AAAH.

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In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation of using a memory means that stores information for constructing a safe communication path within an IP network in relation to the terminal. In particular, the motivation for modifying the reference or to combine the reference teachings would be to maintain state information for subscribers. In particular, *Basilier* cures the above-cited deficiency by providing a motivation found at e.g., column 1, lines 37-49. Second, there would be a reasonable expectation of success since both references teach AAAL. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 2**, the registration response message transfer the information back to the AAAL.

As to **claims 4-5**, see similar rejection to claim 2 and section 5.3 starting on page 146.

5. **Claims 3, 6, 7, and 9-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Mobile IP and Security Issue: An Overview" to *Perkins* in view of U.S. Patent No. 6,728,536 B1 to *Basilier et al.* ("*Basilier*") in further view of "Mobile IP Authentication, Authorization, and Accounting Requirements" to *Glass et al.* ("*Glass*").

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As to **claim 3**, *Basilier* and *Perkins* discloses AAA and security but do not specifically teach IPsec (e.g., a VPN). *Glass* teaches IPsec e.g., in Section 3.1 at page 7. Examiner proposes to modify *Basilier* and *Perkins* to clarify that IPsec is used. Thus examiner notes that it would have been obvious to one skilled in the art to use IPsec since keys are exchanged. *Glass* further provides a motivation since *any* key distribution protocol can be used, see e.g., Section 5.0 on page 11. Examiner notes a further reasonable expectation of success since all three references uses AAAH.

As to **claim 6**, see similar rejections to claims 1 and 3. In particular, a mobile terminal is MN, a home authentication server is AAAH, and a network apparatus is either AAAL or Attendant A.

As to **claim 7**, every time a mobile roams a registration request is sent again.

As to **claim 9**, the Attendant A handles QoS as well as maintains state of a connection (i.e., VPN information is cached), see e.g., middle of page 135.

As to **claim 10**, see similar rejection to claim 1 where the external authentication server is either the AAAL or Attendant A. In particular, see e.g., Section 5.3 starting on page 146.

As to **claims 11-12**, see similar rejection to claim 3.

As to **claim 13**, see similar rejection to claim 6.

As to **claims 14-15**, see similar rejection to claim 3.

Allowable Subject Matter

6. **Claims 19-25** are allowable.

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7. **Claim 8** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. **Claims 16-18** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF


CHI PHAM

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

10/18/09